

TIMOSHENKO, L. V.

EXCERPTA MEDICA Sec 10 Vol. 11/9 Obstetrics Sep 58

1483. METHOD OF STIMULATION OF LABOUR PAINS IN INERTIA (Russian text) - Timoshenko L. V. Ukrainian Inst. for Matern. and Child Welf., Kiev - PEDIAT. AKUSH. I GINEK. 1957, 2 (49-54) Illus. 3

The effectivity of oily oestrogen solutions with the addition of anaesthetic ether in raising the tonus of the pregnant uterine horn in rabbits could be proved. The drugs were injected into the posterior lip of the uterine cervix, as this is rich in interoceptive nerve endings. The injection of the drugs, painless and harmless for mother and child, sensitizes the uterus to the action of oxytocics; the addition of small doses of pituitrin activates cholinesterase, stabilizes acetylcholine, and increases uterine contractility. It is suggested that by dilatating the uterine vessels it may improve the oxygen supply to the foetus. Method: 20,000-40,000 U. of oestradiolpropionate in combination with 0.5 ml. ether is injected into the posterior lip of the cervix, and after 20 min. 20 ml. of 40% glucose, 10 ml. of 10% calcium chloride, and 5 ml. of a 5% ascorbic acid solution are given intravenously; after one hour, this mixture is repeated. With this, an oestrogen-calcium background has been formed. One hour after the second injection of the mixture, pituitrin 0.2 ml. is given subcutaneously up to 5 times, and quinine 0.15 g. up to 6 times. Simultaneously, oxygen is given. In 82 parturients with uterine inertia and in 39 with prolonged pregnancy or with absence of contractions after spontaneous rupture of the membranes a good effect was obtained. Therefore, the author recommends the use, in indicated cases, of this method for the regulation of labour.

Rafalkes - Moscow (S)

TIMOSHENKO, L.V., kand.med.nauk

The problem of labor induction. Akush. i gin. 34 no.3:89 Ky-Je '58.  
(MIRA 11:6)

1. Iz Ukrainского nauchno-issledovatel'skogo instituta okhrany  
materinstva i detstva imeni Geroya Sovetskogo Soyuza prof. P.M.  
Buyko (dir. - zasluzhennyy vrach USSR M.D.Burova)

(LABOR, INDUCED

by inject of estrogens into uterine cervix (Rus)'  
(ESTROGENS, ther. use

labor induction by intrauterine inject. (Rus))

BAKSHEYEV, M.S. [Baksheiev, M.S.], prof.; ~~TYMOSHENKO, L.V.~~ [Tymoshenko, L.V.], dotsent; MIKHAYLENKO, O.T. [Myha'lenko, O.T.]; LYAVINETS, O.S. [Liavynets', O.S.]

Use of a new preparation, ataractic andaxin, in obstetrics and gynecology. Ped., akush. i gin. 23 no.6:35-39 '61. (MIRA 15:4)

1. Kafedra akusherstva i ginekologii No.1 (zav. - prof. M.S.Baksheyev [Bakshëiev, M.S.]) Kiyevskogo meditsinskogo instituta im. akad. Bogomol'tsa Irektor - dotsent V.D.Bratus').  
(MEPROBAMATE) (OBSTETRICS) (GYNECOLOGY)

TIMOSHENKO, L.V. [Tymoshenko, L.V.]

Phenocardiographic evaluation of the influence of estrogenic substances on the fetus. Ped., akush. i gin. 23 no.5:37-42 '61. (MIRA 14:12)

1. Kafedra akusherstva i ginekologii (zaveduyushchiy - chlen-korrespondent AMN SSSR prof. L.S.Persianinov) 2-go Moskovskogo meditsinskogo instituta im. M.I.Pirogova, Ukrainskiy nauchno-issledovatel'skiy institut okhrany materinstva i detstva im. Geroya Sovetskogo soyuza prof. P.M.Buyka (direktor - kand.med.nauk O.G.Pap [Pap, O.H.]; nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. A.P.Nikolayev) i kafedra akusherstva i ginekologii (zav. - prof. M.S.Baksheyev) Kiyevskogo meditsinskogo instituta (rektor - dotsent V.D.Bratus').  
(FETUS) (ESTROGENS--PHYSIOLOGICAL EFFECT)  
(HEART--SOUNDS)

BAKSHEYEV, M.S. [Baksheiev, M.S.], prof.; TIMOSHENKO, L.V. [Tymoshenko, L.V.],  
dotsent

Hemorrhages in labor and their control; second scientific and practical  
conference of midwives and gynecologists of the Ukrainian S.S.R.  
Ped., akush. i gin. 23 no.6:61-3 of cover '61. (MIRA 15:4)  
(HEMORRHAGE, UTERINE) (OBSTETRICS--CONGRESSES)

TIMOSHENKO, L.V. [Tymoshenko, L.V.]

Functional state of the central nervous system in women  
during childbirth. Fiziol. zhur. [Ukr.] 7 no.6:836-840  
N-D '61. (MIRA 15:3)

1. Fiziologicheskaya laboratoriya i akushersko-ginekologicheskii  
otdel Ukrainского nauchno-issledovatel'skogo instituta okhrany  
materinstva i detstva, Kiyev.

(LABOR (OBSTETRICS))

(CEREBRAL CORTEX)

SVECHNIKOVA, Natal'ya Vasil'yevna, kand. med. nauk; SAYENKO-  
LYUBARSKAYA, Valentina Firsovna, kand. med. nauk;  
MALINOVSKAYA, Lyudmila Aleksandrovna; TIMOSHENKO, L.V.,  
red.; CHUCHUPAK, V.D., tekhn. red.

[Treatment of pathological climacteric] Lechenie patologicheskogo klimaksa. Kiev, Gos.med.izd-vo USSR, 1961. 88 p.

(MIRA 15:2)

(CLIMACTERIC)

(HORMONE THERAPY)

7. TIMOSHENKO, L.V.  
KHOKHOL, Ye. N., redaktor; BALABAN, V.G., redaktor; KOL'NER, P.Yu.,  
redaktor; LUK'YANOVA, Ye. M., redaktor; MAKSIMOVICH, N.A., redaktor;  
SIGALOV, D.L., redaktor; TIMOSHENKO, L.V., redaktor; LOKHMATYY, .  
Ye. G., tekhnicheskiy redaktor

[Transactions of the second Congress of Pediatricians of the  
Ukrainian S.S.R. in 1955] Trudy II s'ezda vrachei-pediatrov  
Ukrainskoi SSR. Red. kollegiia E.N. Khokhol i dr. Kiev, Gos.  
med. izd-vo USSR, 1956. 314 p. (MLRA 10:4)

1. S'ezd vrachei-pediatrov Ukrainskoy SSR. 2d, 1955.  
(PEDIATRICS)



TIMOSHENKO, L.V.

Rapid creation of an estrogenic depot for treating weakness in parturition [with summary in English], *Fiziol.shur. [Ukr.]* 3 no.2: 115-124 Mr-Apr '57. (MLRA 10:6)

1. Ukrainsk'kiy institut okhoroni materinstva i ditinstva im. prof. P.M.Buyka.  
(LABOR, COMPLICATED) (ESTRADIOL)

TIMOSHENKO, L. V.

"The Clinical Aspects and Prophylaxis of Hemolytic Diseases in Neonates on the Basis of Rh Incompatibility." Cand Med Sci, Ukrainian Sci-Res Inst of Maternal and Infant Welfare, Kiev, 1953. (RZhBiol, No. 6, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SOF Sum. No. 521, 2 Jun 55

TIMOSHENKO, L.V. [Tymoshenko, L.V.], kand.med.nauk

Tenth anniversary of the Lvov Research Institute of Maternal and Child  
Welfare. Ped., akush. i gin. 19 no.1:59-60 '57. (MIRA 13:1)  
(GYNECOLOGY) (PEDIATRICS)

VINOGRADOVA, S.P.; TIMOSHENKO, L.V.

Importance of the investigation of electric potentials of the  
active points of the skin in obstetrical work practice. Fiziol.  
zhur. (Ukr.) 1 no.1:104-108 Ja-F '55. (MLRA 9:9)

1. Ukrains'kiy institut okhoroni materinstva i ditinstva imeni  
P.M.Buyka.  
(SKIN) (ELECTROPHYSIOLOGY) (OBSTETRICS)

TIMOSHENKO, Leonid Vasil'yevich [Tymoshenko, L.V.], kand.med.nauk;  
BAKSHETEV, M.S. [Bakshetev, M.S.], doktor med.nauk, otv.red.;  
STAROSTENKO, T.M., red.

[Female hygiene] Higiena zhinky. Kyiv, 1960. 42 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR. Ser.5, no.7).  
(WOMEN--HEALTH AND HYGIENE) (MIRA 13:9)

TIMOSHENKO, Leonid Vasil'yevich, kandidat meditsinskikh nauk; KOL'NER,  
A.Yu., redaktor; GITSHTEYN, A.D., tekhnicheskiiy redaktor

[Hemolytic diseases of newborn infants; the Rh factor as a cause of  
hemolysis and its complications] Gemoliticheskie zabolevaniia  
novorozhdennykh; rezus-faktor kak prichina gemoliza i ego oslozhne-  
niia. Kiev, Gos. med. izd-vo USSR, 1956. 155 p. (MIRA 9:12)

(INFANTS (NEWBORN)—DISEASES)

(RH FACTOR)

(HEMOLYSIS AND HEMOLISINS)

YERMAKOVA, A.Ya.; TIMOSHENKO, L.V.

Effect of the vacuum extractor on the mother and infant.  
Akush. i gin. no.1:65-70 '65. (MIRA 18:10)

1. Kafedra akusherstva i ginekologii (zav.- doktor med. nauk  
L.V. Timoshenko) Lechebnogo fakul'teta L'vovskogo meditsinskogo  
instituta.

BAKSHEYEV, M.S. [Bakshiev, M.S.], prof.; TIMOSHENKO.L.V. [Tymosherko,L.V.]  
dotsent; MIKHAYLENKO, O.T. [Mykhailenko, O.T.], aspirant.

Analysis of the causes of maternal mortality from hemorrhages  
in labor according to materials from some maternity hospitals  
in the Ukrainian S.S.R. Ped., akush. i gin. 24 no.1:38-42'62.  
(MIRA 16:8)

1. Kafedra akusherstva i ginekologii No.1 (zav. - prof. M.S.  
Bakshiev [Bakshiev, M.S.] Kiyevskogo meditsinskogo instituta  
(rektor - dotsent V.D.Bratus).  
(UKRAINE—MOTHERS—MORTALITY) (HEMORRHAGE, UTERINE)



GRIGORYAN, R.M.; VASILENKO, F.D.; AKULOVA, R.F.; TIMOSHENKO, M.A.

Effect of hydrogen sulfide baths on the peripheral blood circulation after reconstructive surgery on the major extremital arteries. Sov.med. 26 no.1:46-51 Ja '63.

(MIRA 16:4)

1. Iz 4-go khirurgicheskogo otdeleniya (zav. - prof. N.I. Krakovskiy) Instituta khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A.V.Vishnevskiy) AMN SSSR i eksperimental'nogo otdela (zav. - prof. F.D. Vasilenko) Tsentral'nogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii (dir. - kandidat meditsinskih nauk G.N.Pospelova) Ministerstva zdravookhraneniya SSSR.  
(MINERAL WATERS, SULFUROUS) (ARTERIES--SURGERY)  
(BLOOD--CIRCULATION)

TIMOSHENKO, M. F., Cand Agri Sci — (diss) The effectiveness of auxiliary feeding on fruit-bearing apple trees under opodzol soil conditions," Kiev, 1960, 18 pp, 200 cop. (Ukrainian Academy of Agricultural Sciences) (KL, 44-60, 132)

1. TINOSLENNIC, N. I.
2. USSR (600)
4. Chemistry, Medical and Pharmaceutical
7. Use of liquid lead amalgam for rapid quantitative determination of ferric and ferrous oxide in certain pharmaceutical preparations. Apt. delo No. 6, 1952.
9. Montali, List of Russian Accessions. Library of Congress. March, 1953. Unclassified

1. TIR SHENAC, M. I.
  2. USSR (600)
  4. Iron Oxides
  7. Use of liquid lead amalgam for rapid quantitative determination of ferric and ferrous oxide in certain pharmaceutical preparations. Apt. delo no. 6 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

TIMOSHENKO, M.T.

Colpostats from polyethylene for radiomanipulation in oncogynecology. Med.rad . no.1:85-86'63. (MIRA 16:10)

1. Iz Modarvskogo nauchno-issledovatel'skogo instituta onkologii.

(GENERATIVE ORGANS, FEMALE—TUMORS)  
(RADIOTHERAPY)

TIMOSHENKO, N. A.

USSR/Geology - Coal

Aug 53

"Sphaerosiderites of the Bogoslavskoye Coal Deposits,"  
N. A. Timoshenko, Advanced Engineering Courses at  
the Dnepropetrovsk Mining Inst

Priroda, No 8, pp 111-112

States that the Bogoslavskoye deposits, in Sverdlovskaya Oblast, are the results of coagulation of calcareous-ferrous colloids around considerable accumulation of carbonized vegetational remains.

276T52

It is found that the intensity of the scattered light is accompanied by a circular polarization of the light. In addition, the measurement of linear polarization of the scattered light of the oriented deposit of the polymer film is carried out.

mv. (depending on the electrolyte), while a change of the electrolyte compn. (change of  $\text{ion SO}_4^{--}$  with  $\text{NO}_3^-$ , change of pH, etc.) brings about a change of  $V$  of the given sample from 24 to 28 mv. at  $25^\circ\text{C}$ . In the absence of pure sodium

The authors are grateful to the Ministry of Higher Education of the USSR for the award of a grant for the study of the mechanism of the formation of the electron spin resonance signal in the process of the oxidation of the organic compounds.

metals and the process of electrodialysis. N. Vozjeli

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**CIA-RDP86-00513R001755730010-2"**



REKITAR, Ya.A., kand.ekonom.nauk; TIMOSHENKO, N.F., inzhener-ekonomist;  
USTIMENKO, V.V., ekonomist.

Methods of raising the economic effectiveness of capital  
investments. Stroi.mat. 9 no.11:1-3 N '63. (MIRA 17:4)

VUKALOVICH, M.P., doktor tekhn.nauk, prof.; ALTUNIN, V.V., kend.tekhn.nauk;  
TIMOSHENKO, N.I., inzh.

Experimental determination of the specific volume of carbon dioxide at temperatures ranging from 40 to 150°C and pressures up to 600 kg./cm<sup>2</sup>. Teploenergetika 10 no.1:85-88 Ja '63. (MIRA 16:1)

1. Moskovskiy energeticheskiy institut.  
(Carbon dioxide)

VUKALOVICH, M.P.; ALTUNIN, V.V.; TIMOSHENKO, N.I.

Thermodynamic properties of carbon dioxide at temperatures of  
0-1000°C and pressures up to 100 bars. Atom. energ. 15 no.3:  
210-214 S '63. (MIRA 16:10)

(Carbon dioxide—Thermodynamic properties)

TIMOSHENKO, N.I.; SERGAZIN, A.G.

Pulmonary cancer and fusocellular sarcoma of the adrenal gland in  
a 59-year old man. Zdrav. Kazakh. 21 no.2:67-69 '61.

(MIRA 14:3)

1. Iz patologoanatomicheskogo otdeleniya 1 dorozhnoy bol'nitsy,  
g. Alma-Ata.

(LUNGS—CANCER)

(ADRENAL GLANDS—TUMORS)

VUKALOVICH, M.P., doktor tekhn.nauk, prof.; ALTUNIN, V.V., kand.tekhn.nauk;  
TIMOSHENKO, N.I., inzh.

Experimental study of the specific volumes of carbon dioxide  
under temperatures ranging from 200°C to 750°C and pressures up  
to 600 kg per square centimeter. Teploenergetika 9 no.5:56-62  
My '62. (MIRA 15:4)

1. Moskovskiy energeticheskiy institut.  
(Carbon dioxide--Thermal properties)

VUKALOVICH, M.P., doktor tekhn.nauk, prof.; ALTUNIN, V.V., kand.'tekhn.nauk;  
TIMOSHENKO, N.I., inzh.

Study of the compressibility of carbon dioxide at high temperatures.  
Teploenergetika 10 no.2:92-93 F '68. (MIRA 16:2)  
(Carbon dioxide)

S/096/63/000/002/013/013  
E194/E455

AUTHORS: Vukalovich, M.P., Doctor of Technical Sciences, Professor,  
Altunin, V.V., Candidate of Technical Sciences,  
Timoshenko, N.I., Engineer

TITLE: An investigation of the compressibility of carbon  
dioxide at high temperatures

PERIODICAL: Teploenergetika, no.2, 1963, 92-93

TEXT: Data on specific volumes of CO<sub>2</sub> in the temperature range  
of 200 to 750°C and at pressures up to 600 kg/cm<sup>2</sup> previously  
published (Teploenergetika, no.5, 1962) are supplemented by new  
data for the following isotherms: 650, 700, 750 and 803.34°C at  
pressures in the range 21 to 201 kg/cm<sup>2</sup>. Possible errors in the  
results are discussed: they may be greatest at the highest  
temperature because a heater failed during the tests. The  
possibility of dissociation of the CO<sub>2</sub> during the tests and its  
possible reaction with the steel are discussed. There is 1 figure. ✓

Card 1/1

L 4224-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6029838

SOURCE CODE: UR/0073/66/032/008/0900/0901

AUTHOR: Fortunatov, N. S.; Kublanovskiy, V. S.; Timoshchenko, N. I.; Pokina, Z. A.

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Chlorination in sulfur chloride medium with help of ultraviolet irradiation

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 8, 1966, 900-901

TOPIC TAGS: chlorination, metal extracting, ultraviolet irradiation, sulfur chloride, pyrite, sphalerite, molybdenum oxide, vanadium pentoxide

ABSTRACT: A series of experiments were described in which ultraviolet irradiation was applied in low-temperature chlorination of sulfidic and oxidic ores for the purpose of intensification of the process. Earlier, extraction of iron and zinc from polymetallic sulfidic ores was found to be only 65-75% complete when conventional, low-temperature chlorination in sulfur chloride medium was applied. Experimental chlorination of pyrite, sphalerite, vanadium pentoxide ( $V_2O_5$ ), and molybdenum trioxide ( $MoO_3$ ) was carried out at 137C in a quartz tube irradiated by a PRK-2 lamp or without irradiation. Chemical separation of the chlorination products was described for each material. The percentage of material chlorinated with and without irradiation was: in the case of pyrite and sphalerite—78% versus 46% in 30 min; in the case of  $V_2O_5$ —100 versus about 60% in 60 min; and in the case of  $MoO_3$ —80 versus

Card 1/2

UDC: 66.542.944.03



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ACC NR: AP6029838

about 20% in 20 min. A leveling of the yield at 80% was observed in case of  $\text{MoO}_3$  chlorination because of substitution of sulfur for oxygen in the first stage of the process. In all cases irradiation significantly increased the chlorination rate, as shown by the respective positions of chlorination curves with and without irradiation. Orig. art. has: 2 figures. [JK]

SUB CODE: 11/ SUBM DATE: 23Mar65/ ORIG REF: 003/ATD PRESS: 5066

Card 2/2 *hsh*

INDYCHENKO, N.I.; ZYABLITSKY, I.V.; TIMOSHENKO, N.M.; BATSENKO, N.P.;  
VIZHLYAK, V.G.; CHALYUK, S.M.; VALOSHINA, G.G.

Popular textbook on electric centralization ("Electric centralization of switches and signals" by A.A. Kazakov. Reviewed by N.I. Indychenko and others). Avtom., telem. i svyaz' 2 no.7:48 JI '58.  
(MIRA 11:6)

1. Rabotniki Kiyevskoy dstantsii signalizatsii i svyazi Yugo-Zapadnoy dorogi.

(Railroads—Signaling—Block system)  
(Kazakov, A.A.)

TIMOSHENKO, N.M.

Tester for instruments of the numerical coded circuit blocking. Avtom.  
telem. i sviaz' 3 no.11:34-37 N '59 (MIRA 13:3)

1. Starshiy inzhener laboratorii signalizatsii i svyazi Yugo-Zapadnoy  
dorogi.  
(Railroads--Signaling--Block system)

TIMOSHENKO, N. N.

Stainless, Acid-Resistant, and Heat-Resistant Steels. F. P. Chimaushin, Edited by N. N. Timoshenko. 479 pages. 1946. State Scientific Technical Publishing House for Ferrous and Non Ferrous Metallurgy, Moscow. (in Russian.)

Describes the properties of stainless, acid- and heat-resistant steels and alloys, as obtained from Russian and foreign experimental data. Also covers methods of production of these steels and alloys and their applications. A complete bibliography is included. This publication may be considered as a handbook for metallurgical, chemical, and construction engineers.

*Timoshenko, N.N.*  
LUR'YE, I.L., kandidat tekhnicheskikh nauk; TIMOSHENKO, N.N., kandidat tekhnicheskikh nauk.

The use of sponge and refined cast iron in smelting high-grade steels and special alloys. Stal' 15 no.12:1135-1140 D '55.  
(MLRA 9:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.  
(Smelting)

*Timoshenko N. N.*

TIMOSHENKO, N.N., kand.tekhn.nauk; BARDIN, I.P., akademik, otv.red.;  
GONCHAROV, N.G., tekhn.red.

[Direct reduction of iron ores] Priamoe vosstanovlenie zhe-  
leznykh rud. Otv.red. I.P.Bardin. Moskva, Vses.in-t nauchn.  
i tekhn.informatsii, 1959. 54 p. (MIRA 13:5)  
(Iron--Metallurgy) (Iron ores)

PHASE I BOOK EXPLOITATION

SCV/4508

Akademiya nauk SSSR. Institut metallurgii

Titan i yego splavy, vyp. 3: Metallovedeniye titana (Titanium and Its Alloys, No. 3: Metal Science of Titanium) Moscow, Izd-vo AN SSSR, 1960, 161 p. Errata slip inserted. 2,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A.A. Baykova.

Resp. Ed.: N.V. Ageyev, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: M.L. Podgoyetskiy; Tech. Ed.: Ye. V. Makuni.

PURPOSE: This collection of articles is intended for scientific research workers and metallurgical engineers.

COVERAGE: The articles summarize results of experimental studies of titanium-base alloys. The microstructure and mechanical properties of titanium-base alloys containing aluminum, chromium or other metals are analyzed along with the effect of oxygen, hydrogen and heat treatment on alloy structure and properties. The tendency of titanium alloys to embrittlement as a result of strain

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Titanium and Its Alloys (Cont.)

SOV/4508

aging is emphasized, and the nitriding of titanium, carried out to increase the surface strength and wear resistance of titanium alloys, is described. Transformations occurring in commercial titanium under conditions of electric heating are examined. Attempts to develop titanium-base alloys capable of withstanding temperatures over 400°C are discussed as are problems of titanium-powder metallurgy and reliability of certain titanium-base alloys. No personalities are mentioned. Most of the articles have bibliographic references, the majority of which are Soviet.

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Titanium and Its Alloys (Cont.)

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Aksenov, G.I., V.G. Khromov, A.N. Nikolayev, and Yu.N. Semenov. Roll-Pressing Titanium Powder Into a Thin Band by Using the Method of the Gor'kiy Polytechnical Institute		152
Kanyshkov, A.S. Result of Using Titanium in a Plant		159
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18.6100

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S/136/60/000/03/013/020  
E071/E435

AUTHORS: Timoshenko, N.N., Borok, B.A., Petunina, Ye.V.,  
Shchegoleva, R.P. and Golubeva, L.S.

TITLE: Titanium Based Metallo-ceramic Alloys

PERIODICAL: Tsvetnyye metally, 1960, Nr 3, pp 68-74 (USSR)

ABSTRACT: The branch of Powdered Metallurgy of the Central Iron and Steel Scientific Research Institute produces titanium based alloys in the form of sintered semis up to 80 kg which are worked into rods, sheets, strip, plates and wire. At present, equipment is being introduced for pressing semis up to 250 kg in weight. The experimental material on the influence of various alloying elements on titanium (IMP-1A) accumulated in the Institute is briefly described. The influence of aluminium, vanadium, iron, manganese, tin and niobium on the mechanical properties of IMP-1A alloy (strength at +20 and +400°C; reduction in arc (neck) at +20 and -60°C) is shown in the plot, Fig 1. Of the titanium alloys for the production of sheets the most systematic investigation was carried out for the ternary system Ti-Al-V. The alloy IMP-7 (Ti + 3% Al + 2% V) is

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S/136/60/000/03/013/020

E071/E435

# Titanium Based Metalloceramic Alloys

being produced; the properties of this alloy are given in Table 1. The manufacture of an alloy of Ti + 4% Al + 2% V (IMP-9) is proposed for the production of sheets for operating at elevated temperatures (400 to 500°C; properties given in Table 2). Alloys for the production of hot rolled tubes, forging and stamping (IMP-6/1 and IMP-6/2) composition as given Table 4), after hot working by pressure, possess the structure of metastable  $\beta$  phase with a small amount of  $\alpha$  phase. This makes it possible to limit thermal treatment only to annealing of forged and hot rolled metal. The dependence of hardness of the above alloys on annealing temperature (200 to 600°C) is shown in Fig 3. The heat resistant alloy T.4 is a six component metalloceramic alloy (composition not given) and was developed for forging and stamping. The dependence of its mechanical properties on temperature is plotted in Fig 4. Titanium alloys possessing the best strength and plasticity for the production of parts by sintering (with minimum subsequent machining) were

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S/136/6G/00C/03/013/02G  
E071/E435

Titanium Based Metallo-ceramic Alloys

found to belong to binary systems of Ti-V and Ti-Mo and ternary alloys of the above systems with aluminium. Their compositions and mechanical properties are given in Table 5. Properties of  $\gamma$  phase of heat resistant alloys of the Ti-Al system are briefly discussed. Data on the hardness of this type of alloy and its susceptibility to oxidation are given in Table 6, and Fig 5 respectively. Alloying of the alloy Ti + 33% Al with 2% nickel improves its working properties. A high resistance of this type of alloy to oxidation, a low decrease in strength with increasing temperature, low specific gravity (about 3.5 g/cm<sup>3</sup>) and the possibility of improving their technological properties by alloying, makes them suitable for the development of heat resistant alloys. There are 5 figures, 6 tables and 4 references, 3 of which are Soviet and 1 English.

Card 3/3

BOYCHENKO, Mikhail Stepanovich; RUTES, Viktor Savel'yevich; FUL'MAKHT,  
Veniamin Veniaminovich; TIMOSHENKO, N.N., red.; POZDNYAKOVA, G.L.,  
red. izd-va; KARASEV, A.I., tekhn. red.

[Continuous casting of steel] Nepreryvnaia razlivka stali. Moskva,  
Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii,  
1961. 301 p. (MIRA 14:10)

(Continuous casting)



TIMOSHENKO, N.N.; BOROK, B.A.; TEPLENKO, V.G.; SOLOV'YEVA, Z.V.

Metallurgical processing of ilmenite concentrates and  
titanium-magnetites for the purpose of obtaining iron powder  
and a product with a high titanium content. Titan i ego  
splavy no.5:69-74 '61. (MIRA 15:2)

(Ilmenite)  
(Ore dressing)

TIMOSHENKO, N.N.

Sixth Colloquium of Plant Laboratories in the Iron and Steel  
Industry. Zav. lab. 30 no.9:1164-1165 '64. (MIRA 18:3)

1. Predsedatel' kollokviuma, nachal'nik otdela tsentral'nykh  
laboratoriy TSentral'nogo nauchno-issledovatel'skogo instituta  
chernoy metallurgii.

TIMOSHENKO, N.N.; IZMANOVA, T.A.; CHISTYAKOVA, Ye.M.

Automatic determination of gases in steel by means of the exhalograph  
EA-1. Zav. lab. 31 no.9:1068-1069 '65. (MIRA 18:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metal-  
lurgii imeni Bardina.

BUYANOV, N.V.; IVANOVA, L.A.; SUKHOVA, N.P.; TIMOSHENKO, N.N.

Spectrum analysis of open-hearth slags on a DFS-10 quantometer.  
Sbor.trud. TSNIICHM no.31:19-28 '63. (MIRA 16:7)  
(Slag--Spectra)

KOROTKOV, V.F.; TIMOSHENKO, N.N.; TITOVETS, A.V.

Developing a method of sulfur, phosphorus, and carbon analysis  
using a vacuum quantometer. Sbor.trud. TSNIICHM no.31:7-18 '63.  
(MIRA 16:7)

(Sulfur--Spectra) (Phosphorus--Spectra) (Carbon--Spectra)

TIMOSHENKO, Nikolay Nikolayevich

[Quality of oxygen-blown converter steel] Kachestvo  
kislородno-konvertornoj stali. Moskva, Metallurgiya,  
1965. 133 p. (MIRA 18:7)

TIMOSHEV, N.P.

Diagnostic value of cytological investigations in tumors of the larynx. Zhur. ush. nos. i gorl. bol. 23:5-10 N-D '63. (MIRA 17:5)

1. Iz kliniki bolezney ukha, gorla i nosa (ispolnyayushchiy obyazannosti naveduyushchego - kand. med. nauk I.M. Ispuganov, nauchnyy rukovoditel' - zasluzhennyy deyatel' nauki prof. L.A. Zaritskiy) Zaporozhskogo instituta usovershenstvovaniya vrachev im. A.M. Gor'kogo.

ACCESSION NR: AP4042341

S/0138/64/000/007/0048/0049

AUTHOR: Nabok, N. I.; Timoshina, N. P.

TITLE: Treatment of steel fittings for the bonding of rubber to metal with adhesives in the manufacture of rubber stuffing boxes

SOURCE: Kauchuk i rezina, no. 7, 1964, 48-49

TOPIC TAGS: rubber stuffing box, rubber to metal banding, adhesive, FEN-1, metal surface treatment, degreasing, parkerizing, coating, vulcanization, bonding strength, adhesion strength

ABSTRACT: The Moscow Industrial Rubber Products Plant has mechanized the treatment of steel fittings for the bonding of rubber to metal with adhesives in the manufacture of rubber stuffing boxes. The metal surface is treated as follows: 1) twofold degreasing with agitation (bubbling of hot air) for 2—3 min at 85—90C; 2) careful washing with hot (50—60C) running water; 3) parkerizing for 5—7 min at 60—70C with a solution of 1 part zinc monophosphate (96 g-l) and sodium nitrate (128 g-l) in 3 parts of water; 4) washing with cold and then hot (50—60C) running water; 5) drying in hot air at

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ACCESSION NR: AP4042341

90—100C; 6) coating with FEN-1 adhesive by single dipping in a 10—12% adhesive solution; 7) drying for 25 min at 85—90C, and then for 20—24 hr at room temperature. The stuffing boxes are made on a nitrile (SKN-26) rubber base. The rubber in the assembled boxes is vulcanized for 6 min under a steam pressure of 7 atm. The rubber-to-metal bonding strength in the finished products is 40—50 kg/cm<sup>2</sup> (GOST 209-41), and the strength of adhesion (stripping test) is 5—10 kg/cm<sup>2</sup>.

ASSOCIATION: Moskovskiy zavod rezino-tekhnicheskikh izdeliy, No. 1 (Moscow Industrial Rubber Products Plant No. 1)

SUBMITTED: 00

ATD PRESS: 3065

ENCL: 00

SUB CODE: MT, MM

NO REF SOV: 001

OTHER: 000

Card 2/2

L 19420-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-L IJP(a) JP/10

ACCESSION NR: AR4048179

S/0081.84/000/000/0007/1.007

SOURCE: Ref. zh. Khimiya, Abs. 9L48

AUTHOR: Baranov, A. V., Liberzon, E. A., Timoshenko, N. Ye., Khmelinia, T. P.

TITLE: The concentration of dilute nitric acid in the presence of calcium nitrate

CITED SOURCE: Tr. Sibirsk. tekhnol. in-za, sb. 36, 1963, 45-49

TOPIC TAGS: nitric acid production, nitric acid concentration, calcium nitrate, azeotropic mixture

TRANSLATION: The authors studied the concentration of  $\text{HNO}_3$  in the vapors above mixtures of  $\text{HNO}_3 + \text{H}_2\text{O} + \text{Ca}(\text{NO}_3)_2$  and found that concentrated  $\text{HNO}_3$  is obtained in the presence of  $\text{Ca}(\text{NO}_3)_2$ . Diagrams for determining the concentration of  $\text{HNO}_3$  in the vapors and the boiling point of mixtures of  $\text{HNO}_3 + \text{H}_2\text{O} + \text{Ca}(\text{NO}_3)_2$  in relation to their composition were constructed. These showed that this system has an azeotropic point near 68.4%, so that the spent solution will contain approximately 70%  $\text{Ca}(\text{NO}_3)_2$ . Authors' summary

Card 1/2

L 19420-65

ACCESSION NR: AR4048179

SUB CODE: IC

ENCL: 00

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Card 2/2

S/032/60/026/011/023/035  
B004/B067

AUTHOR: Timoshenko, O. A. ✓

TITLE: Determination of Brittle Strength of Plastics by Means of  
Notched Samples

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 11,  
pp. 1293 - 1297

TEXT: The author describes experiments of testing brittle strength of metals by means of notched samples. Armco iron, 10, 20, 45, Y8 (U8), Я1Т (Ya1T) steels, and Л68 (L68) brass were studied. The following was measured: change of the profile during the application of stress change of the microstructure by determining the axial elongation  $\epsilon_e$  and the radial contraction  $\epsilon_r$  of the grains. The following results were obtained: ✓

When stress is applied to the samples consisting of plastic material (armco iron, 10, 20, Ya1T steel, L68 brass) the material at the bottom of the notch is subject to strong deformation. Hence, according to the theory of small plastic deformation, the problem cannot be solved by

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Determination of Brittle Strength of Plastics S/032/60/026/011/023/035  
by Means of Notched Samples B004/B067

analytical methods. For steels containing less than 0.35% carbon, brittle strength cannot be determined by means of notched samples. For  $C > 0.35\%$  to 0.65% brittle strength may be calculated according to G. V. Uzhik (Ref. 4) and for  $C > 0.65\%$  it may be determined directly. For plastic carbon steels ( $C < 0.35\%$ ) alloyed austenite steels and nonferrous metals brittle strength cannot be determined since at maximum stress the entire cross section is subject to plastic deformation. These investigations were made under the supervision of Academician N. N. Davidenkov. There are 6 figures and 4 references: 1 Soviet, 2 US, and 1 German. ✓

ASSOCIATION: Mordovskiy gosudarstvennyy universitet (Mordvinian State University)

Card 2/2

TSAROVSKIY, I.D.; TIMOSHENKO, O.D.

Find of nepheline syenites in the middle Dnieper Valley. Zap.Vses.min.  
ob-va 92 no.4:474-476 '63. (MIRA 17:2)

TSAROVSKIY, I.D. [TSarovs'kyi, I.D.]; TIMOSHENKO, O.D. [Tymoshenko, O.D.]

New Lesser Tersyanka syenite-foyaite (middle Dnieper Valley).  
Geol.zhur. 22 no.6:83-88 '62. (MIRA 16:2)

1. Institut geologicheskikh nauk AN UkrSSR i Kompleksnaya  
ekspeditsiya tresta "Dneprogeologiya".  
(Dnieper Valley---Nepheline syenite)

TIMOSHENKO, P.K.

Efficiency of the standardization of chemical machinery.

Standartizatsiia 28 no.5:22-23 My '64.

(MIRA 17:12)



TIMOSHENKO, P.K., inzh.

New regulation for the planned preventive maintenance of  
equipment and means of transportation. Khim. mashinostr.  
no. 6:32-33 N-D '62. (MIRA 17:9)

TIMOSHENKO, P.K., inzh.

Economic effectiveness of the introduction of plastics into the  
chemical machinery manufacture. Khim.mashinostr. no.5:32-34  
S-0 '63. (MIRA 16:10)

TIMOSHENKO, S., marshal Sovetskogo Soyuza

More stress on mechanization and automation. Voen.vest. 39 no.12:  
9-15 D '59. (MIRA 13:6)  
(Russia--Army--Equipment)

~~TIMOSHENKO~~, Stepan Prokof'yevich, prof.; YANG, D.Kh. [Young, D.H.], prof.;  
PANOVKO, Ya.G. [translator]; KAMENETSKIY, S.A., red.; GAVRILOV,  
S.S., tekhn.red.

[Vibration problems in engineering] Kolebaniia v inzhenernom  
dale. Moskva, Gos,izd-vo fiziko-matem.lit-ry, 1959. 439 p.  
(MIRA 12:10)

(Vibration)

(Mechanics, Applied)

KUL'SKIY, L.A.; KACHAN, A.A.; SHERSTOBOYEVA, M.A.; TIMOSHENKO, T.K.

Catalytic action of silver water in the reaction of the oxidation  
of indigo carmine by hydrogen peroxide. Ukr.khim'zhur. 29  
no.1:106-108 '63. (MIRA 16:5)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR i  
Belotserkovskiy sel'skokhozyaystvennyy institut.  
(Indigo carmine) (Hydrogen peroxide) (Silver)

TIMOSHENKO, U.J.; FEDOTOVA, I.F.

Late spring and early autumn frosts in the Chu and Talas Valleys of  
the Kirghiz S.S.R. Trudy Sred.-Az. nauch.-issl. gidrometeor. inst.  
no.20:183-200 '65. (MIRA 18:10)

TIMOSHENKO, V.A. (Vladivostok)

Constructing foundations for buildings of few stories on heaving  
ground. Osn., fund. i mekh. grun. 6 [i.e.7] no.2:14-15 '65.

(MIRA 18:8)

YERU, I.I., LANGE, A.A., TIMOSHENKO, V.A.

Catalytic isomerization of meta-xylene in the presence of coke-oven gas under pressure. Koks i khim. no.3:51-53 '60. (MIRA 13:6)

1. Ukrainskiy uglekhimicheskiy institut.  
(Xylene) (Coke-oven gas)



YERU, I.I.; LANGE, A.A.; TIMOSHENKO, V.A.; KIR'YAKOVA, Ye.T.

Hydrogenation of naphthalene and naphthalene-containing oils.  
Koks i khim. no. 5:44-46 '61. (MIRA 14:4)

1. Ukrainskiy uglekhimicheskiy institut.  
(Naphthalene) (Hydrogenation)

MEL'NICHUK, P.I. [deceased]; TIMOSHENKO, V.G.

Unit for determining the modulus of elasticity at low temperatures.  
Izm.tekh. no.4:11-12 Ap '62. (MIRA 15:4)  
(Pulse techniques (Electronics))

IOSEL'SON, S.A.; TIMOSHENKO, V.G.; YUDITSKIY, B.D. (Stalino)

Physiological and hygienic characteristics of new models of  
oxygen respirators for mine rescue crews. Gig.truda i prof.  
zab. 3 no.4:54-55 J1-Ag '59. (MIRA 12:11)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya po  
gornospasatel'nomu delu.

(RESPIRATORS)

TIMOSHENKO, V. G. [Tymoshenko, V. H.] (Kiyev)

Calculating bending vibrations of a beam in case of hysteretic losses. Prykl. mekh. 9 no.1:33-41 '63. (MIRA 16:4)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.

(Beams and girders—Vibration)

PISARENKO, Georgiy Stepanovich; TROSHCHENKO, Valeriy Trofimovich;  
TIMOSHENKO, Vsevolod Georgiyevich; KUZ'MENKO, Vasiliy  
Aleksandrovich; ISAKHANOV, Georgiy Vakhtangovich;  
TRET'YACHENKO, Georgiy Nikolayevich; GRYAZNOV, Boris  
Alekseyevich; NOVIKOV, Nikolay Vasil'yevich; RUJENKO,  
Vasiliy Nikitich; SHUMILOVA, Rufina Gerasimovna; LEBEDEV,  
I.V., red.; DAKHNO, Yu.B., tekhn. red.

[Strength of ceramic metals and alloys at normal and high  
temperatures] Prochnost' metallokeramicheskikh materialov i  
splavov pri normal'nykh i vysokikh temperaturakh. Kiev,  
Izd-vo Akad. nauk USSR, 1962. 274 p. (MIRA 16:2)

1. Chlen-korrespondent Akademii nauk Ukr.SSR (for Pisarenko).  
(Ceramic metals)  
(Metals at high temperatures)

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 159 (USSR) SOV/124-57-4-5093

AUTHOR: Timoshenko, V.G.

TITLE: On the Application of a Capacitive Strain Gage for the Recording of Mechanical Vibrations (O primenenii yemkostnogo datchika pri zapisi mekhanicheskikh kolebaniy)

PERIODICAL: V sb.: Vopr. poroshkovoy metallurgii i prochnosti materialov. Nr 3. Kiyev, AN UkrSSR, 1956, pp 117-121

ABSTRACT: The paper suggests the use of the simplest type of capacitive strain gage for the recording of mechanical vibrations. The author shows analytically the absence of distortion in the law governing the damping of an impulse of the type

$$U_{me} = a \sin \omega t$$

when passing through an amplifier with a limited pass band. The paper adduces the circuit of an amplifier used for the recording, with the aid of a capacitive strain gage, of longitudinal vibrations with frequencies of the order of 1.5 kc and with  $5 \div 50 \mu$  amplitudes.

G. S. Pisarenko

Card 1/1

USCOMM-DC-61140

111058ENK006

PHASE I BOOK EXPLOITATION SOV/5303

Nauchno-tekhnicheskoye soveshchaniye po dempfirovaniyu kolebaniy. Kiev, 1958.

Trudy Nauchno-tekhnicheskogo soveshchaniya po dempfirovaniyu kolebaniy, 17 - 19 dekabrya 1958 g. (Transactions of the Scientific and Technical Conference on the Damping of Vibrations, Held 17 - 19 December, 1958) Kiev, Izd-vo AN UkrSSR, 1960. 178 p. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainakoy SSR. Institut metallokeramiki i spetsial'nykh splavov.

Editorial Board: I. N. Frantsevich, G. S. Pivarenko (Resp. Ed.), G. V. Samonov, V. V. Grigor'yeva, and A. P. Yakovlev; Ed. of Publishing House: I. V. Kisina; Tech. Ed.: A. A. Matveychuk.

COVERAGE: The book contains 27 articles dealing with principal results of theoretical and experimental investigations of energy dissipation in mechanical vibrations carried out in the Soviet Union from 1956 to 1958. Problems of energy dissipation in materials and factors affecting it are discussed. Purportedly new methods of experimental investigation of damping of vibrations are presented. Attention is given to the recently developed nonlinear theory of calculating vibrations in elastic systems, taking energy dissipation into account. Attempts to analyze internal friction in materials using methods of mathematical statistics are discussed. Some articles deal with engineering problems in dynamics, in which damping is claimed to play a highly substantial part. Aspirant N. I. Mukhin, of the Kiev Polytechnic Institute, is mentioned. References accompany some of the articles.

SOV/5303

Timoshenko, V. G., [Candidate of Technical Sciences]. On Some Experimental Methods for Studying Energy Dissipation in Vibrating Material 84

Mitkevich, Z. A., A New Method for Determining Characteristics of Internal Friction 93

Kuz'menko, V. A., [Junior Scientific Worker]. Calorimetric Study Method for Energy Dissipation in a Material Subjected to High-Frequency Mechanical Vibrations 97

Khil'chevskiy, V. V., [Candidate of Technical Sciences]. On the Determination of the Logarithmic Decrement of Freely Damped Vibrations 99

Kuz'menko, V. A. On the Determination of True Characteristics of Energy Dissipation in a Vibrating Material 103

Movkov, N. V., [Candidate of Technical Sciences]. Effect of the Type of State of Stress on Energy Dissipation in a Vibrating Material 107

Khil'chevskiy, V. V. On the Effect of the Type of State of Stress on Energy Dissipation in a Material 115

Yakovlev, A. P., [Candidate of Technical Sciences]. On Energy Dissipation in Rods Subjected to Bending Vibrations of Different Types 118

Mukhin, N. M. On the Effect of Geometric Dimensions of Specimens on Energy Dissipation in a Material Vibrating Torsionally 123

Yakovlev, A. P., and R. G. Shumilova [Senior Engineer, Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR (Institute of Powder Metallurgy and Special Alloys, Academy of Sciences UkrSSR)]. Study of the Effect of the Dimensions of Cornet Specimens on Logarithmic Decrement of Damping Transversal Vibrations 127

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37926

S/115/62/000/004/002/007  
E194/E154

14.8200

AUTHORS:

Mel'nichuk, P.I. (deceased) and Timoshenko, V.G.

TITLE:

Equipment for the determination of modulus of elasticity at low temperatures

PERIODICAL: Izmeritel'naya tekhnika, no.4, 1962, 11-12

TEXT: The article describes equipment made in the Institut metallokeramiki i spetsial'nykh splavov AN USSR (Institute of Cermet s and Special Alloys, AS Ukr.SSR) for the determination of modulus of elasticity in the temperature range +20 to -195 °C. It is based on measurement of frequency of longitudinal vibrations in a rod made of the tested material. It is shown that the accuracy depends mainly on the accuracy of measurement of resonance frequency which in this equipment is 0.2%, so that the error of determination of the modulus of elasticity is not greater than 0.5%. The vibrations are generated by a capacitive transducer driven by signal generator and the resonance frequency is determined from Lissagou's figures on an oscilloscope screen using an auxiliary signal

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Equipment for the determination ...

S/115/62/000/004/002/007  
E194/E154

generator. The resonance indicator is a four-stage low frequency amplifier with valve voltmeter. The sample chamber is described. It can be cooled with liquid nitrogen and is jacketed by an evacuated space to provide thermal insulation. Liquid nitrogen can be kept in the chamber for about an hour and the rate of temperature rise is in the range  $-4$  to  $-195$  °C at a rate of  $0.6^{\circ}/\text{min}$ . In determining the modulus of elasticity allowance is made for changes in specimen length and density. There are 3 figures.

Card 2/2

X

*TIMOSHENKO, V.G.* PHASE I BOOK EXPLOITATION

SOV/6342

Pisarenko, Georgiy Stepanovich, Valeriy Trofimovich Troshchenko, Ysevolod Georgiyevich Timoshenko, Vasil'y Aleksandrovich Kuz'menko, Georgiy Vakhtangovich Isakhanov, Georgiy Nikolayevich Tret'yachenko, Boris Alekseyevich Gryaznov, Nikolay Vasil'yevich Novikov, Vasil'y Nikitich Rudenko, and Rufina Gerasimovna Shumilova

Prochnost' metallokeramicheskikh materialov i splavov pri normal'nykh i vysokikh temperaturakh (Strength of Sintered Materials and Alloys at Room and High Temperatures) Kiev, Izd-vo Akademii nauk UkrSSR, 1962. 274 p. Errata slip inserted. 2400 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut metallokeramiki i spetsial'nykh splavov.

Resp. Ed.: G. S. Pisarenko, Corresponding Member, Academy of Sciences USSR; Ed.: I. V. Lebedev; Tech. Ed.: Yu. B. Dakhno.

Card 1/6  
2

Strength of Sintered Materials (Cont.)

SOV/6342

**PURPOSE:** The book is intended for engineers, scientific research workers, aspirants, and students concerned with problems of the strength of sintered materials and structural parts.

**COVERAGE:** The book reviews the results of studying the strength, ductility, and elasticity of materials and structural parts produced by powder-metallurgy methods and presents brief information on these methods. Particular attention is given to methods of experimental investigation of physical and mechanical characteristics of heat-resistant sintered materials with specific properties, and to the description of a number of testing units developed for these investigations. Some problems of the theory of the strength of brittle sintered materials and high-porosity ductile materials are discussed. Laws governing changes in characteristics of strength and elasticity under the effect of various factors are outlined. The appendix includes reference tables with data on the basic mechanical characteristics of a number of sintered materials. The assistance of members of the Powder Metallurgy Institute V. I. Kovpak, Yu. A. Kashtalyan, L. V. Kravchuk, A. P. Yakovlev, V. K. Kharchenko, V. K. Kuz'menko, and V. A. Chebotarev is acknowledged. There are 141 references, mostly Soviet.

Card 2/2

TIMOSHENKO, V.G.

S/198/63/009/001/002/006  
D251/D308

AUTHOR: Tymoshenko, V.H. (Kiev)

TITLE: Calculation of the flexural oscillations of a beam  
in the case of hysteresis damping

PERIODICAL: Prykladna mekhanika, v. 9, no. 1, 1963, 33-41

TEXT: There are two basic forms of internal damping of energy in the oscillations of mechanical systems, considered from an engineering standpoint: a) the dissipation of energy in the material of the elastic elements of the system, and b) the damping due to slip-through between the parts of the system. For both types of damping, under cyclic loading-relieving conditions, a hysteresis loop is obtained, in the first case for the stress-strain relationship and in the second case for the load-displacement curve. The problem of energy damping in the flexural oscillations of a beam is considered, using the results of the author's previous work (Prykladna mekhanika, v. 8, no. 5, 1962), certain functions and parameters having complex values in this case. The distribution of amplitudes

Card 1/2

Calculation of the flexural ...

S/198/63/009/001/002/006  
D251/D308

is obtained in terms of complex Krylov functions, and equations are established for the normalized impedances in the flow section. The following cases are considered in detail: a) the resonance regime of a supported beam which produces a moment of the support, the drive and torque being calculated, and b) a cantilever with damping in the fixture, the equivalent dissipation coefficient being considered and its dependence on the rigidity being demonstrated. There are 3 figures.

ASSOCIATION: Instytut metalokeramyky i spetssplaviv AN URSR  
(Institute of Metal Powders and Special Alloys of  
the AS UkrSSR)

SUBMITTED: July 7, 1962

Card 2/2

TIMOSHENKO, V.G.

PHASE I BOOK EXPLOITATION

SOV/6342

Pisarenko, Georgiy Stepanovich, Valeriy Trofimovich Troshchenko, Vsevolod Georgiyevich Timoshenko, Vasiliy Aleksandrovich Kuz'menko, Georgiy Vakhtangovich Isakhanov, Georgiy Nikolayevich Tret'yachenko, Boris Alekseyevich Gryaznov, Nikolay Vasil'yevich Novikov, Vasiliy Nikitich Rudenko, and Rufina Gerasimovna Shumilova

Prochnost' metallokeramicheskikh materialov i splavov pri normal'nykh i vysokikh temperaturakh (Strength of Sintered Materials and Alloys at Room and High Temperatures) Kiyev, Izd-vo Akademii nauk UkrSSR, 1962. 274 p. Errata slip inserted. 2400 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut metallokeramiki i spetsial'nykh splavov.

Resp. Ed.: G. S. Pisarenko, Corresponding Member, Academy of Sciences USSR; Ed.: I. V. Lebedev; Tech. Ed.: Yu. B. Dakhno.

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Strength of Sintered Materials (Cont.)

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**PURPOSE:** The book is intended for engineers, scientific research workers, aspirants, and students concerned with problems of the strength of sintered materials and structural parts.

**COVERAGE:** The book reviews the results of studying the strength, ductility, and elasticity of materials and structural parts produced by powder-metallurgy methods and presents brief information on these methods. Particular attention is given to methods of experimental investigation of physical and mechanical characteristics of heat-resistant sintered materials with specific properties, and to the description of a number of testing units developed for these investigations. Some problems of the theory of the strength of brittle sintered materials and high-porosity ductile materials are discussed. Laws governing changes in characteristics of strength and elasticity under the effect of various factors are outlined. The appendix includes reference tables with data on the basic mechanical characteristics of a number of sintered materials. The assistance of members of the Powder Metallurgy Institute V. I. Kovpak, Yu. A. Kashtalyan, L. V. Kravchuk, A. P. Yakovlev, V. K. Kharchenko, V. K. Kuz'menko, and V. A. Chebotarev is acknowledged. There are 141 references, mostly Soviet.

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TOPCHYEVA, K.V.; ROMANOVSKIY, B.V.; TIMOSHENKO, V.I.

Kinetics of heterogeneous catalytic reactions studied by the circulation method. Part 2: Cumene cracking over aluminosilicate catalysts. Kin. i kat. 6 no. 3: 471-475 My-Je '65.

(MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.



ACC NR: AR6017815 SOURCE CODE: UR/0058/66/000/001/H063/H063

141  
B

AUTHOR: Merkulov, L. G.; Timoshenko, V. I.

TITLE: Calculation of the coefficient of acoustic coagulation

SOURCE: Ref. zh. Fizika, Abs. 1Zh421

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva.  
Vyp. 20. M., 1964, 187-191

TOPIC TAGS: coagulation, particle *distribution*, conductor,  
acoustic field

ABSTRACT: The paper deals with the calculation of the coefficient for determining the coagulation rate (changes in the concentration of particles per unit of time). It is assumed that forces arise around the particle in the acoustic field at a certain distance from the particle (from the coagulation surface) which lead to instantaneous coagulation. The coagulation process is considered stationary. The determination of the coagulation probability under these assumptions becomes an electrostatic problem: the determination of field near the surface of a charged conductor. L. Zarembo. [Translation of abstract]  
[NT]

SUB CODE: 09/

Card 1/1 11b

L 34397-66 EWT(d)/T/ENI-1) IJP(c) GG/BB/GD/JXT(BF)

ACC NR: AT6009442

SOURCE CODE: UR/0000/65/000/000/0045/0051

AUTHOR: Aleksandrov, Ye. K.; Sul'povar, V. L.; Timokhin, V. I.

ORG: none

TITLE: The fundamental characteristics of a model learning automaton and certain results of its learning to discriminate patterns 166

SOURCE: AN SSSR. Nauchnyy sovet po kompleksnoy probleme Kibernetika. Bionika (Bionics). Moscow, Izd-vo Nauka, 1965, 45-51

TOPIC TAGS: logic circuit, logic element, pattern recognition, algorithm, electronic feedback, automaton

ABSTRACT: Logic circuits made up of threshold elements are used as the basis for a learning automaton. These bases were proposed by Varshavskiy in 1962. The problem of pattern recognition is solved by finding the logic function which divides the sets of independent binary variables into two classes. Where Varshavskiy used an ideal logic circuit of threshold elements, in the present work the weight factors of the input of every threshold element in the first layer do not change during teaching and can accept only one of three fixed values +1, 0, -1. With respect to this, the inputs of a threshold element divide into activating ( $\xi=+1$ ), retarding ( $\xi=-1$ ) and blank ( $\xi=0$ ). The thresholds of all the elements are the same and remain constant

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throughout the entire process. Every threshold element realizes the function

$y_i = \text{sign} \left[ \sum_{i=1}^n \xi_i x_i - \eta \right]$ , where  $\xi_i$  is the weight factor of the i-th input;  $x_i$  is the value of the

binary input variable at the i-th input;  $\eta$  is the threshold value;  $n$  is the number of the inputs of the automaton and  $j = 1, 2, 3, \dots, n$ . The specific advantages of this automaton are the large volume of information about the signal, the parallel processing principle, and the use of distributed memory. It should be added that there are individual memory units for storing weight factors for each threshold element. The automaton was used in 1962 for discriminating the letters of the Russian alphabet, numbers, and various geometric figures. The methodology for teaching the automaton is discussed. Algorithms were used in the majority of cases. Feed-back was discontinued and every element was checked for its correct answer to the teaching sequence. The teaching process was continued for those elements which gave wrong answers. Curves are given showing the increase in the number of correct answers for the elements of the automaton. A part of the experiment consisted of finding out whether the automat was able to recognize new elements of the images already incorporated. This phase of the experiment was called "checking the automaton for generalization." Under these conditions 60 to 80% of the answers were correct. The automaton was simulated on high speed digital computers when the linear law of weight factor change was verified. It is shown that the automaton becomes more flexible with an increase in the number of elements or the complexity of structure. Orig. art. has: 6 figures, 4 formulas.

SUB CODE: 09, <sup>05</sup> / SUBM DATE: 26Oct65 / ORIG REF: 001

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BLG

L 64305-65 EPF(n)-2/RED(b)-3/EXT(L)/ETC(m)/TCC LJP(c) GA/MA

ACCESSION NR: AP5013705

UR/0046/65/011/002/0222/0225

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47

AUTHOR: Timoshenko, V. I.

TITLE: Aggregation of aerosol particles in a sound field under the conditions of Stokes flow

SOURCE: Akusticheskiy zhurnal, v. 11, no. 2, 1965, 222-225

TOPIC TAGS: particle motion, atmospheric acoustic phenomenon, aerosol, acoustic field

ABSTRACT: Inasmuch as earlier studies of aerosol-particle interaction were limited to uniform particles moving with the same velocity, and usually undergoing free sedimentation, the author examines the interaction of nonidentical particles in a sound field, in the Stokes approximation. The author considers the case of particles of different sizes, and the vibration of an acoustic field of a certain frequency. The expression for the drag forces are obtained in the approximation of the radial velocity components in the Stokes approximation. To be able to take account of the variation in the separation between particles without excessively complicating the differential equation, the half-period of the oscillations is divided into a larger number of time segments and the differential equation is integrated between the end points of each segment, using the Minsk-1 computer at the Computer Center of the

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Petrozavodsk State University. The results are presented in graphical form and analyzed. The analysis shows the mutual displacement per unit time increases very abruptly with increasing frequency, reaching a maximum in the vicinity of several hundred cycles for heavy particles with large radii and in the vicinity of several kilocycles for smaller particles, after which it begins to drop. The author thanks L. G. Merkulov for continuous interest in the work and for valuable suggestions." Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. Ul'yanova (Lenina)  
(Leningrad Electrotechnical Institute)

SUBMITTED: 24 Feb 64

ENCL: 00

SUB CODE: GP

NR REF SOV: 004

OTHER: 002

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22(5)

SOV/132-59-8-15/18

AUTHOR: Timoshenko, V.S.

TITLE: Record of Work on Labor Protection and Safety  
Techniques in the Tatsinskaya Geological Exploratory  
Party

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 8, pp 56-58 (USSR)

ABSTRACT: Different measures taken by the administration and  
members of the Tatsinskaya Geological Exploratory  
party of the Volgo-Donskoye territorial'noye geo-  
logicheskoye upravleniye (the Volga-Don Territorial  
Geological Administration) concerning labor protection  
and safety technique are described in this article.  
Different safety installations, the introduction of  
various devices to protect the worker cut down con-  
siderably the number of casualties in the party.  
Every day special inspectors (I.A. Grebenyuk, I.S.  
Savenko, N.A. Lysenko, etc) check the safety in-  
stallations and immediately report on every infringe-  
ment of the regulations or on installation defects.

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Record of Work on Labor Protection and Safety Techniques  
in the Tatsinskaya Geological Exploratory Party

The party also introduced many improved tools and working methods proposed by: senior drilling master V.F. Yeremin (a special handle for the friction clutch of the ZIF 1200 m drilling rig, a special bridge for the ZIF-1200A drilling rig); the fitter of the garage A.P. Chernetskiy (a safe way to fill the batteries with sulfuric acid); senior inspector I.S. Savenko (a rational method to press the drive-pipes into a bore hole with an S-80 tractor), etc. The party also took part in a competition on safety technique, sanitation, and fire-prevention measures, and was awarded first prize by the Volga-Don Geological Administration. This Administration, jointly with the Upravleniye Rostovskogo okruga (Rostovskiy Okrug Administration), with the Gosgortekhnadzor of the RSFSR and the territorial committee of the trade union, introduced special certificates for all leading geological exploratory specialists stating

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Record of Work on Labor Protection and Safety Techniques  
in the Tatsinskaya Geological Exploratory Party

their professional qualifications, instruction received, diplomas, etc. All infringements are listed on these certificates, as well as all achievements.

ASSOCIATION: Tatsinskaya geologorazvedochnaya partiya (the Tatsinskaya Geological-Prospecting Party)

Card 3/3



TIMOSHENKO, V. V.

Scrubber water from gases of the coal chemical production.  
Khim. prom.[Ukr.] no.1:16-18 Ja-Mr '62. (MIRA 15:10)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii.

(Coke industry—By-products) (Ammonia)

TIMOSHENKO, V.V. [Tymoshenko, V.V.]; OVCHINNIEVA, Ye.P. [Ovchinnikova, Ye.P.]

Obtaining dehydrated calcium chloride from the waste liquors of  
soda production. Khim.prom. [Ukr.] no.2:25-26 Ap-Jo '65.

(MIRA 18:6)

SOV/124-57-3-3449

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 119 (USSR)

AUTHOR: Timoshenko, V. V.

TITLE: Natural-oscillation Frequencies of Shallow Parabolic Arches of Variable Cross Section (Chastoty svobodnykh kolebaniy pologikh parabolicheskikh arok peremennogo secheniya)

PERIODICAL: Tr. Dnepropetr. in-ta inzh. zh.-d. transp., 1956, Nr 25, pp 301-317

ABSTRACT: Frequencies are given for the natural oscillations of shallow symmetrical fixed parabolic arches the cross-sectional moments of inertia of which vary according to the law

$$I_x = \frac{I_1}{1 - [(1-n)(2x/l)] \cos \phi} \quad \left( n = \frac{I_1}{I_2 \cos \phi} \right),$$

where  $I_1$  and  $I_2$  are the moments of inertia at the keystone and the springer, respectively,  $x$  is the distance of the cross section under consideration from the keystone,  $l$  is the span of the arch, and  $\phi$  is the angle of the slope of the tangent to the cross section with respect

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Natural-oscillation Frequencies of Shallow Parabolic Arches of Variable (cont.) SOV/124-57-3-3449

to the horizon. In setting up the differential equations of the oscillations, the displacements are determined without consideration to the effect of the curvature or the transverse forces; the longitudinal forces are considered only for the calculation of the lateral thrust. Only the vertical components of the inertia forces are included in the calculation. The solution of the oscillations equation is accomplished by means of the Bubnov-Galerkin method. The well-known basic functions of the oscillations of parabolic arches  $I_x = I_1 \sec \phi$  are selected to represent the  $\Phi$  functions which fulfill the boundary conditions of the problem stated. The results of the calculations are arranged in tabular form with the values of the coefficients of the primary and the secondary frequency  $n$  ranging from 1 to 0.2, respectively, and the values of  $f/i_1$  (where  $f$  is the rise of the arch and  $i_1$  is the radius of inertia of the keystone cross section) ranging from 0 to 0.20. The error of the solution is investigated. Approximate formulas obtained from the data of already-completed arch bridges are given for the primary and secondary peripheral frequencies  $\nu_1$  and  $\nu_2$ , respectively. Mention is made of the satisfactory accuracy of the linear formulas

$$\nu_1 = 0.0773(344-l)$$

$$\nu_2 = 0.12(316-l)$$

$$(120 \leq l \leq 230 \text{ m})$$

$$(120 \leq l \leq 230 \text{ m})$$

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A. A. Pikovskiy